

1.0 DESCRIPTION

This work consists of furnishing precast panels, structural steel, concrete, and all other materials; handling, transporting, fabricating, galvanizing, and storing materials; furnishing erection drawings, backfilling, shaft excavation, and erecting and installing the sound barrier wall members and all other materials as required by the plans, Standard Specifications and this Special Provision.

The plans allow for a choice of a 10 ft (3.1 m) or 15 ft (4.6 m) pile spacing. Pile spacings greater than 15 ft (4.6 m) will not be permitted for any reasons. Once selected, use the pile spacing throughout the entire length of the wall unless the Engineer approves otherwise.

2.0 MATERIALS AND FABRICATION

Provide materials and fabricate members in accordance with the requirements of Division 10 of the Standard Specifications for Roads and Structures.

Provide precast panels that are 4 inches \pm ¼ inch (102 \pm 6 mm) thick with an exposed aggregate finish on one face. Install this face in the wall facing the roadway. The depth of the exposure is required to range from 0 to 1/4 inch (0 mm to 6 mm). Furnish three 12" x 12" (300 mm x 300 mm) samples for approval which establish the acceptable variations in color, texture, and uniformity. After the color, texture, and uniformity of the furnished samples are approved, produce a full scale panel unit meeting design requirements. This mock-up and the furnished samples establish the base or standard quality for acceptance of the panels. When producing the final installed panels, use fine and coarse aggregate, retarder, and cement from the same source as those used in the approved sample panels.

3.0 CONSTRUCTION METHODS

Complete the final survey of existing ground profile after clearing the wall area but prior to submitting any working drawings. Submit the final groundline survey with the working drawings.

If the Department is responsible for the survey, the Engineer field verifies the existing ground profile along the sound barrier wall. Contact the Engineer to obtain the survey information. Otherwise, complete the existing ground survey to determine the number and heights of the precast panels.

Provide consistent pile spacing throughout the length of the wall. Use odd pile spacings, if necessary, only at the ends of the wall and at turning points as approved by the Engineer.

If necessary, employ special measures to ensure the stability of the shaft between the time of excavation and the time of pile placement and concrete backfilling. Use temporary casings, install the pile and backfill the hole immediately after the shaft is excavated, install

well points, or take other measures. If caving occurs, discontinue the shaft excavation operation until special anti-caving measures are implemented.

Shaft excavation involves penetration into soil, weathered rock, or hard rock. Regardless of the class of material encountered, excavate the shafts to the full plan depth.

4.0 WORKING DRAWINGS

Submit casting drawings for the precast face panels for approval in accordance with Article 1077-2 of the Standard Specifications prior to casting. Show the inserts, method of handling, and support details used for transportation on casting drawings. Submit metalwork fabrication drawings for approval prior to fabrication of steel wall components. Submit an erection plan and concrete face panel placing plan, including location of various heights of panels, for review and acceptance prior to fabrication of metalwork. Submit five sets of detail drawings.

5.0 METHOD OF MEASUREMENT

The quantity of sound barrier wall to be paid for will be the actual square feet (square meters) of precast panels used in the completed and accepted wall. Measurement will be made of the total area of precast panels used in the wall.

6.0 BASIS OF PAYMENT

The quantity of sound barrier wall, measured as provided above, will be paid for at the contract unit price bid per square foot (square meter) for "Sound Barrier Wall".

The unit price bid per square foot (square meter) will be full compensation for all work covered by this Special Provision including, but not limited to, furnishing precast panels, structural steel, concrete, and all other materials; handling, transporting, fabricating, galvanizing, and storing materials; furnishing erection drawings, backfilling, shaft excavation, and erecting and installing the sound barrier wall members.

Payment will be made under:

Sound Barrier WallSquare Feet (Square Meter)